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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,332	11/24/2003	Kazuhisa Takayama	60280 (70904)	6559

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EXAMINER	
FALASCO, LOUIS V	

ART UNIT	PAPER NUMBER
1773	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/722,332	TAKAYAMA ET AL.	
	Examiner	Art Unit	
	Louis Falasco	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) *17 and 18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

PAPER RECEIVED

Applicants arguments and amendments filed November 18, 2005 are acknowledged.

CLAIMS

The claims are: 1 to 18.

1. Claims 17 and 18 have been withdrawn as non-elected. Applicant's election in the reply filed on 6/7/05 has been acknowledged in the previous action. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election is treated as an election without traverse (MPEP § 818.03(a)).

The claims under consideration remain: 1 to 16.

Claim Rejections - 35 U.S.C. §112 2nd paragraph, 102(a), 103(a)

Statutory Basis

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1 to 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim term *absolute value of magnetization* is indefinite as to a meaning in the claims. There are many dissimilar magnetic field strengths in the art - e.g., the *absolute value of* perpendicular magnet field strength, or the *absolute value of* external magnetic field strength, the *absolute value of* static magnetic field strength and combinations such as the *absolute value of* [Hex – Hs], [Hex + Hs], and the term has not been clearly defined in the specification. Applicants argument it would be recognized by those in the art has not been found convincing since it is unclear which magnetic value the *absolute value of magnetization* is in reference to.

Claim Rejections - 35 U.S.C. §102(a) or 103(a)

In response to applicants arguments and statements that **Hirokane et al** US 6678219 is not 'prior art' under 102(e) for 35 USC 103(a) under MPEP 706.02(l)(2) the following new rejections are made with **Hirokane et al** (EP 1 098 306) as prior art (published 09/05/2001).

3. Claims 1, 4, 5, 7, 8, 9, 11, 12, 14, 15 and 16 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Hirokane et al** (EP 1 098 306).

Hirokane et al teaches the basic requirements of these claims including a magnetic recording medium having a base layer with a metal layer and a first magnetic layer and second magnetic layer (as in **Hirokane et al** Fig. 1 layers 2, 3, 4). **Hirokane et al** does *not* (1) describe the metal layer as having an *'unspontaneous'* magnetization property nor (2) does **Hirokane et al** the explicitly state that the second magnetic layer property of having *a greater peak absolute value of total magnetization than the first magnetic layer within a range from a room temperature to a Curie temperature of the second magnetic layer*, however these properties are inherent in the **Hirokane et al** metal layer and magnetic layers.

As regard the metal layer property of *'unspontaneous'* magnetization: **Hirokane et al** layer 2 inherently possesses an *'unspontaneous'* magnetization property since it is composed of identical materials and disclosed as being non-magnetic and so would be expected to have unspontaneous magnetization[1] (*cf* paragraphs [0018] Example 1 of **Hirokane et al** with instant paragraph [0014]).

As regard the magnetic layers property with the *'second magnetic layer having greater peak absolute value of total magnetization than said first magnetic layer within a range from a room*

[1] Failure of those skilled in the art to recognize an inherent property, does not preclude a finding of anticipation. *Atlas Powder Co. v. IRECO, Inc., 190 F.3d 1342, 1349, 51 USPQ2d 1943, 1948 (Fed. Cir. 1999)*

temperature to a Curie temperature of the second magnetic layer': **Hirokane et al** first and second magnetic layers inherently possesses this property correlation. In the instant claims the first magnetic layer and second magnetic layer correspond to those of **Hirokane et al** layer 3 and layer 4. The relative values would have been inherent in **Hirokane et al** since, they are the same magnetic rare earth 3d transition metal compositions as applicants claim (**Hirokane et al** paragraph [0042]) and have the same function. **Hirokane et al** layer 4 is an image forming layer, requiring a greater Curie temperature relative to layer 3 – a flux forming layer – in order to be imaged by a laser and store an image at room temperature. See **Hirokane et al** paragraph [0041] also paragraphs [0042] and [0044] explaining Curie temperature relationship of the layers at paragraph [0045]) where laser imaging/recording in the image forming layer 4 must be higher than the fluxing layer (layer 3) below it. Though *absolute value of total magnetization* is not identified in **Hirokane et al**, the claiming of a property inherently present in the prior art does not necessarily make a claim patentable. Where claimed and prior art products have been shown to be substantially identical in structure or composition and the burden of proof shifts to applicant to show prior art products do not necessarily nor inherently posses the characteristic of the instant claimed product - *In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433* (CCPA 1977).

4. Claims 2, 3, 6, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hirokane et al** (EP 1 098 306)

Hirokane et al teaches the basic requirements of these claims including a magnetic recording medium having a base layer with a metal layer and a first magnetic layer and second magnetic layer (as in **Hirokane et al** Fig. 1 layers 2, 3, 4). **Hirokane et al** does *not* specify relative magnetization ratios of claims 2 and 13 and magnetic layer thicknesses of claims 3, 6, and 10. However, absent evidence to the contrary, relative amounts and thicknesses would have been a matter of routine optimization[2], obvious from the prior art since **Hirokane et al** teaches magnetization may be optimized by adjustments in coercive force of layers (see paragraphs [0083], [0098], [0112], [0128) by selection of a Curie Temperatures and thickness variations ih storage and flux forming layers and non-magnetic intermediate layer (paragraphs [0054], [0057], [0064]) with materials (paragraphs [0050], [0063], [0118 and Table1).

Double Patenting Rejections

In further in response to applicants new admission in the arguments and amendments filed November 18, 2005 that **Hirokane et al** US 6678219 is commonly owned with the instant invention by *Sharp Kabushiki Kaisha* a nonstatutory double patenting rejection is made.

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[2] "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1 to 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 20 and 22 to 31 of **Hirokane et al** US Patent No. 6678219.

The claims of U.S. Patent No. 6678219 include invention claimed in instant claims 1 to 16 except for (1) claiming 'unspontaneous magnetization property' for the layer between the substrate and first magnetic layer and (2) claiming the second magnetic

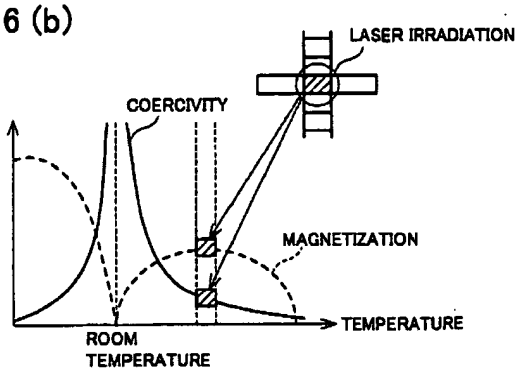
layer property of *'peak absolute value of total magnetization'* greater than the first magnetic layer.

With regard to the 'unspontaneous magnetization property' for the layer between the substrate and first magnetic layer: the claims of US Patent No. 6678219 are based on the disclosure of a magnetic recording media having a layer between the substrate composed of identical materials and disclosed as being non-magnetic and so would be expected to have unspontaneous magnetization as in the instant claims (*cf* Fig. 1, col. 5 ln 17, col. 10 lns 29, 30, col. 13 lns 23-26, Example 1 of **Hirokane et al** and instant specification paragraph [0014]) and so would be expected to have the same property, anticipating the unspontaneous magnetization property.

With regard to the second magnetic layer having 'peak absolute value of total magnetization' greater than the first magnetic layer: though this has not been claimed in US Patent No. 6678219 the claims of US Patent No. 6678219 are based on the disclosure of a magnetic recording media having a first magnetic layer (layer 3) developing flux lines for a imaging layer where the second magnetic layer laser imaging or recording (layer 4). For this relationship the first magnetic layer must have a compensation temperature lower that the second, to allow only the second magnetic layer to be imaged by the laser (see **Hirokane et al** disclosure at col. 5 lns 16-21), similarly this temperature relationship provides for the imaging or recording in the second magnetic layer in the instant claims as illustrated in instant Fig. 6(a) where magnetic flux goes through by the first layer and magnetic pattern held in the second layer necessarily be

at the higher (laser) temperature as illustrated by instant Fig. 6(b) in the square recording area at the temperature of laser irradiation, optimally at highest magnetization point.

FIG. 6 (b)



Although the conflicting claims are not identical, they are not patentably distinct from each other under the judicially created doctrine of obviousness-type double patenting over claims 1 to 20 and 22 to 31.

Examiner response to Arguments

6. Applicant's arguments with respect to claim 1 to 16 have been considered but are moot in view of the new grounds of rejection.

SUMMARY

The claims are 1 to 18.

- Restriction had been required and claims 17 and 18 have been withdrawn from consideration.

The claims under consideration are: 1-16.

- No claim has been allowed.

INQUIRES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, PhD whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, PhD can be reached at (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LF
02/06

CAROL CHANEY
SUPERVISORY PATENT EXAMINER